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AUTHOR Wolfer, Terry A.

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#### ABSTRACT

Novices often struggle to learn qualitative data analysis, and benefit from intensive assistance. For teaching analysis more efficiently in the classroom setting, the workshop described in this paper explained and demonstrated an inductive, experiential method. The method introduces grounded theory analysis and helps students to identify, elaborate, and systematize their own approaches. The workshop included selected, abbreviated portions of the instructional process, and provided sample teaching materials. The method centers on a semistructured data analysis exercise that consists of two rounds of activity. Each round includes analysis of the same interview transcript, written reflection during the analytic process, and a quided class discussion. The exercise provides some explicit guidance, but the instructions are deliberately ambiguous at some points to force student choices. The first round provides preliminary experience with data analysis, and the second round builds on the initial learning experience as it elaborates and qualifies the grounded theory method of analysis. Three appendixes present a section of the course syllabus, an inductive analysis exercise, and sample discussion questions. (Contains 10 references.) (SLD)

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Running Head: TEACHING QUALITATIVE DATA ANALYSIS

#### 'Just Do It':

# An Inductive, Experiential Method for Teaching Qualitative Data Analysis

Terry A. Wolfer

University of South Carolina

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#### Abstract

Novices often struggle to learn qualitative data analysis, and benefit from intensive assistance. For teaching analysis more efficiently in the classroom setting, this workshop explained and demonstrated an inductive, experiential method. The method introduces grounded theory analysis, and helps students to identify, elaborate, and systematize their own approach. The workshop included selected, abbreviated portions of the instructional process, and provided sample teaching materials.

Key words: qualitative data analysis, instruction, grounded theory



#### 'Just Do It':

# An Inductive, Experiential Method for Teaching Qualitative Data Analysis

Learning to analyze their data has often been the most challenging aspect of qualitative research for students and novices, and perhaps also for experienced researchers. As Wolcott says, "the greater problem for first-time qualitative researchers is not how to get data but how to figure out what to do with the data they get" (1994, p. 9). Many authors writing qualitative research methods texts have focused on collecting data but given limited attention to analyzing it. However, some grounded theorists have provided detailed, step-by-step instructions about how to analyze data (Charmaz, 1983, 1990; Glaser, 1978, 1992; Strauss, 1987; Strauss & Corbin, 1990), brief instructions about how to teach or learn the method (Strauss, 1987), and also a collection of exemplary research reports that illustrate the method (Strauss & Corbin, 1997). Nevertheless, their writings often prove perplexing, even counterproductive, for novices who try to follow them cookbook-style. While brief descriptions provide insufficient guidance, more detailed descriptions tend to rigidify a complex, dynamic process and may obscure each researcher's idiosyncratic contribution to this process. Ultimately, these instructions are not helpful and may even prove disabling for some novices, and the analytic process remains mysterious and intimidating. In short, written instructions have important but limited value for many students.

This workshop explained and demonstrated an experiential classroom method for teaching qualitative data analysis. The method introduces novice researchers to the grounded theory method of analysis, and helps them to recognize, develop, and systematize their personal application of it. Theoretically, the teaching method draws on Schön's (1987) model for educating the reflective practitioner and Reinharz's (1984) account of professional socialization.



Schön emphasizes the importance of allowing students to practice new professional skills, and the educational value of personal reflection upon what they are doing (at first, in retrospect, and eventually, while practicing the skill). Reinharz emphasizes the way students adapt knowledge and skills in the process of making it their own, an idea especially pertinent for learning data analysis. The workshop showed how instructors can make data analysis more accessible to students, and how they can provide a foundation upon which students can further develop their analytic skills.

Basically, the method centers on a semi-structured data analysis exercise. The exercise consists of two rounds of activity. Each round includes analysis of the same interview transcript, written reflection during the analytic process, and a guided class discussion to debrief student efforts. The exercise is semi-structured to provide some explicit guidance. However, the instructions are deliberately ambiguous at certain points to force students to make choices about how to proceed, and to elicit a range of responses from the group of students.

The initial round provides preliminary experience with data analysis. Readings introduce students to the grounded theory method of qualitative data analysis (see relevant section of course syllabus in Appendix A). Simultaneously, students begin to analyze the interview transcript prompted by a brief set of written questions and instructions (see assignment description and instructions in Appendix B). At the next class session, students bring for discussion the transcript, all products of their analytic work, and their written responses to the assignment questions. The instructor leads the group in a discussion designed to help students gain understanding of their own analytic methods and style (see sample discussion questions in Appendix C). Focusing on process rather than content, the discussion begins with concrete questions about how students approached the analytic task (e.g., skimmed entire transcript first,



read slowly and deliberately), what they did specifically (e.g., writing notes as they read, asking questions about the interview, thinking about how to proceed), and what they produced in the process (e.g., doodles, margin notes, memos, tables, dividing lines, connecting arrows, code words or phrases). Capitalizing on inevitable differences among students, this discussion highlights alternative approaches. Next, the discussion addresses the content of students' analyses, emphasizing similarities and differences in their initial 'findings.' This discussion helps students begin to identify and articulate connections between the transcript and their findings, and especially recognize how they made these connections. Again, the group context increases students' awareness of alternate ways to think about the data and demonstrates different understandings that may result. At the same time, the discussion may challenge weak or unwarranted conclusions. In sum, group discussion of the initial round of data analysis provides students with a better understanding of concrete alternatives and a beginning sense of their own approach.

A second round of data analysis builds on the initial learning experiences. The second set of readings elaborates and qualifies the grounded theory method of analysis. Returning to the analytic task with some experience and additional information, students use the second round to revise, refine and systematize their own approach. Stimulated by the first discussion and subsequent practice opportunity, students' written reflections culminate in a brief summary of their analytic approach. For many students, these reflections may provide a foundation for the data analysis section of a dissertation or research proposal. Students also consider the tension between 'discovering' theory and 'constructing' it, and take a position on the issue based on their initial experience with data analysis. Again, the instructor leads a discussion of the students' further efforts to analyze the interview transcript (see sample discussion questions in



Appendix C).

This teaching method helps students understand qualitative data analysis in several ways. First, it provides brief hands-on experience. Second, using an inductive method to elicit information, it systematically directs students' attention to specific aspects of their analytic practice and builds understanding from these observations. Third, by helping students compare their actual analytic practice with others, it promotes experimentation with and informed decision-making about analytic strategies. Finally, by making this inductive method explicit, the teaching method helps many students more fully comprehend the process of inductive knowing that is foundational to much qualitative research.

At the same time, the teaching method has important limitations. Because the exercise uses a single interview transcript, students do not gain experience with creating the interview transcript, a process that can be challenging and problematic in its own right. More importantly, from a grounded theory perspective, providing students with an interview transcript does not allow them to engage in data collection guided by their evolving analysis. In the classroom setting, there is a practical limitation on the extent of instructor feedback to particular students but the multiple perspectives of their classmates may compensate for this. In addition, students appear to benefit from their experience providing feedback to their classmates. In summary, this brief teaching exercise obviously can only introduce students to a method of qualitative data analysis. But it offers concrete experience that may reduce anxiety and stimulate personal learning, providing an important foundation for understanding and conducting qualitative data analysis.





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# Appendix A:

# Section of Qualitative Research Methods Course Syllabus

#### Week 8: Data Analysis: Introduction

- Glesne, Corrine and Alan Peshkin. "Finding Your Story: Data Analysis." Chap. 7 in *Becoming Qualitative Researchers: An Introduction*. White Plains, NY: Longman, 1992.
- Wolcott, Harry F. "Description, Analysis, and Interpretation in Qualitative Inquiry." Chap. 2 in *Transforming Qualitative Data: Description, Analysis, and Interpretation*. Thousand Oaks, CA: Sage Publications, 1994.
- Miles, Matthew B. and A. Michael Huberman. "Matrix Displays: Some Rules of Thumb" and "Making Good Sense: Drawing and Verifying Conclusions." Chaps. 9 and 10(a-b) in *Qualitative Data Analysis: An Expanded Sourcebook*. 2nd ed. Thousand Oaks, CA: Sage Publications, 1994.

#### Recommended:

Patton, Michael Quinn. "Qualitative Analysis and Interpretation." Chap. 8 in *Qualitative Evaluation and Research Methods*. 2nd ed. Newbury Park, CA: Sage Publications, 1990.

#### Week 9: Data Analysis: Grounded Theory, I (Analysis Exercise Due, Part I)

Strauss, Anselm and Juliet Corbin. Chaps. 5 to 12 in *Basics of Qualitative Research: Grounded Theory Procedures and Techniques*. Newbury Park, CA: Sage Publications, 1990.

#### Week 10: Data Analysis: Grounded Theory, II (Analysis Exercise Due, Part II)

- Charmaz, Kathy. "The Grounded Theory Method: An Explication and Interpretation." In Contemporary Field Research, ed. Robert M. Emerson. Boston, MA: Little Brown, 1983.
- Glaser, Barney G. "Theoretical Coding." Chap. 4 in *Theoretical Sensitivity: Advances in the Methodology of Grounded Theory*. Mill Valley, CA: Sociology Press, 1978.
- Addison, Richard B. "Grounded Interpretive Research: An Investigation of Physician Socialization." In *Entering the Circle: Hermeneutic Investigation in Psychology*, ed. Martin J. Packer and Richard B. Addison. Albany, NY: State University of New York Press, 1989.
- Charmaz, Kathy. "Discovering' Chronic Illness: Using Grounded Theory." Social Science & Medicine 30 (1990): 1161-1172.



# Appendix B:

#### **Inductive Data Analysis Exercise**

After reading the required articles and chapters on data analysis for weeks 8 and 9, carefully read and begin to analyze the attached interview transcript. The segment comes from an early interview on daily life events for my study on coping with chronic community violence. Basically, as outlined below, develop a few codes and memos to capture what you learn. The assignment requires several iterations of this process, with reflective classroom discussions in between. Finally, write a brief paper on your use of the grounded theory method of data analysis incorporating issues raised in class.

Beginning to work on the analysis while reading for the first session on data analysis should enhance your understanding of the readings, helping you to incorporate and use ideas directly. As the same time, hands on experience can help you to sort through recommendations and instructions given in the readings. Subsequent readings and class discussions should further inform your analytic efforts.

This brief exercise does not permit adequate time for you to explore and reflect upon the transcript to any great extent. For that reason, what you learn substantively will be limited. Hopefully, the exercise will provide you opportunity to experiment with a specific analytic method and begin to understand and systematize your own analytic approach to qualitative data.

# Part I (for class on March 17 [Week 9]):

- 1. In general, try to develop some initial understanding of the content of this interview transcript. Although there are many ways to go about this task, I recommend that you include at least the following activities: separate and summarize segments of the interview transcript, interrelate these segments, and keep track of your observations, hunches, and questions as you go along. Use a pencil to mark and write on the transcript so that you can make changes as your analysis proceeds.
- 2. Try breaking the interview down into meaningful segments (from words to multiple pages in length). Create some codes to summarize and label the content of these interview segments.
- 3. Write some brief memos (from sentences to paragraphs in length) about interview content. In general, What is the interview about? What are you learning from this informant? What insights have you developed about the topic? How did you determine the codes? What are your reasons for applying particular codes to interview segments? How might various segments be related? What specific questions emerge from your work with this interview transcript?
- 4. Write separate memos about your own *process* of digesting or learning from this transcript, both while you are doing the analysis and after you complete this initial round of analysis. How do *you* gain understanding?



# Part II (for class on March 24 [Week 10]):

- 5. What were the most important ideas or tactics you picked up from our class discussion? How, if at all, do other people's ideas or tactics help you understand your own? How, if at all, can you incorporate their ideas or tactics into your own analytic efforts?
- 6. Engage in a further round of analysis, creating more codes to summarize and label the content of interview segments.
- 7. Write additional, (perhaps) longer memos about interview *content*. What are you learning from this informant? And so on (see #3 above).
- 8. Write separate memos about your own *process* of digesting or learning from this transcript. How do *you* achieve understanding?
- 9. Despite constraints provided by the content and assignment, I assume that as adult learners you process information in unique ways and will need to develop a personal style of data analysis. By reflecting on your work and our class discussions, try to ascertain your personal analytic approach. Summarize your analytic process in several paragraphs. List and describe the steps in your thinking process (what happens in your head) and your written record (what you do on the page or computer screen). For example, when reading the transcript initially, how did you think about the information? What did you do first on the page or screen? When you resumed reading the transcript, how did you next try to think about the content? and so on. How are these cognitive and behavioral steps interrelated?
- 10. Identify and reflect on personal factors that contributed to your findings. For example, How did your prior knowledge or lack of knowledge both help and hinder the analytic process? How did your own questions about the topic influence the information you discovered in or created from the interview transcript? How much difficulty did you have in following the assigned task (i.e., trying to build up understanding inductively)?
- 11. How do you view and use the grounded theory method of analysis, as primarily a discovery process or a constructive process? Justify your answer.
- 12. Hand in the interview transcript and instruction packet along with your completed assignment (parts I and II) on March 24, 1997.

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## Appendix C:

#### **Sample Discussion Questions**

#### 1. How do you undertake a major research paper? (Week 8)

- a. How do you "make sense" of massive amounts of information?
- b. What steps/processes do you use?
- c. Are these consistent across papers? topics? over time?

# 2. Review of students' initial analytic efforts (Week 9)

- a. How long are your segments, typically? How many do you have? What labels did you give coded segments? What types of things did you identify in coded segments?
- b. How long are your substantive (or content) memos, typically? How many do you have? What did you look for in the transcript? What questions did you ask yourself about the data? How, if at all, did you use my research questions? What else did you find there? How did you determine (or select or come up with) the codes? What were your reasons for applying particular codes to interview segments? How did you try to link various segments? So what is the interview about? What insights have you developed about this topic? What content-specific questions emerge from your work with this interview transcript at this point?
- c. How long are your process (or reflective) memos, typically? How many do you have? How, specifically, did you proceed to code and memo? Identify the steps you actually took. Does this seem to work for you? Why or why not? If not, speculate about what did or might work better for you? Can you systematize these procedures? How do these procedures facilitate your understanding? Will these procedures facilitate the basic processes of breaking down and reintegrating the data? How do you achieve understanding? How much difficulty did you have reflecting on your learning process?
- d. In light of this discussion, what might you try in the next round of coding and memoing?

# 3. Review students' subsequent analytic efforts (Week 10)

- a. What were the most important ideas or tactics you picked up from our previous class discussion on analysis? How successful were you in trying to integrate these ideas or tactics into your own analytic efforts?
- b. How, if at all, did your codes and memos differ from earlier codes and memos (e.g., number, length, abstractness)? What *new* codes did you discover/create? What *new* relationships between concepts did you discover/create?
- c. What *further* observations or reflections did you make about your analytic style? Was it easier to catch yourself at work this time? If yes, what accounted for the difference? How did our previous discussion contribute to your attitudes and activities? How did the readings contribute to your understanding of analysis?
- d. By reflecting on your work and our class discussions, try to ascertain your



personal analytic approach. Summarize your analytic process: List and describe several steps in your thinking process (what happens in your head) and your written record (what you do on the page or computer screen). When reading the transcript initially, how did you think about the information? What did you do first on the page or screen? When you resumed reading the transcript, how did you next try to think about the content? How rapidly do you cycle between reading and writing? How much time do you devote to one part of the cycle as compared with another? How are these cognitive and behavioral steps interrelated? How do they build on each other? Can you imagine trying to systematically apply these steps to a large data base?

- e. Identify and reflect on personal factors that contributed to your findings. How did your prior knowledge or lack of knowledge (e.g., about the interviewee, setting, topic) help and hinder the analytic process? How did your own questions about the topic influence the information you discovered in or created from the interview transcript? How much difficulty did you have in following the assigned task (i.e., trying to build up understanding inductively)? To what do you attribute your difficulties or successes?
- f. [After discussion of Addison and Charmaz:] How do you view and use the grounded theory method of analysis, as primarily a discovery process or a constructive process?

## 4. Summary discussion. Why use a grounded theory method of analysis? (Week 10)

- a. A set of procedures for systematically analyzing data (e.g., asking questions, making comparisons, writing codes and memos)
- b. An *inductive* method that "disciplines" what we know with data
- c. A way to move beyond pure description to theorizing
- d. Offers important ideas about how to focus data collection and analysis (e.g., beginning analysis early, theoretical sampling, saturation)
- e. A credible and widely applicable method of qualitative data analysis



#### **Author Note**

Terry A. Wolfer, College of Social Work.

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Correspondence concerning this article should be addressed to Terry A. Wolfer, College of Social Work, University of South Carolina, Columbia, SC 29208. Electronic mail may be sent via Internet to terry.wolfer@sc.edu.

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College of Social Work University of South Carolina Columbia, SC 29208

Printed Name/Position/Title:

Terry A. Wolfer Assistant Professor

FAX: Telephone:

terry.wolfer@sc.edu

803-777-9486 803-777-3498 E-Mail Address: Date:

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